

REMARKS/ARGUMENTS

The rejections presented in the Office Action dated December 5, 2006 (hereinafter Office Action) have been considered. Claims 1-20 remain pending in the application. Reconsideration of the pending claims and allowance of the application in view of the present response is respectfully requested.

With respect to the non-statutory obviousness-type double patenting rejection of claim 1 based on U.S. Patent No. 6,708,058 to *Kim et al.*, Applicant submits the attached Terminal Disclaimer Under 37 C.F.R. §1.321(c). This submission is believed to overcome the double patenting rejection and Applicant requests that this rejection be withdrawn.

Claim 1 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,447,519 to *Peterson* (hereinafter "*Peterson*") or U.S. Patent No. 6,449,503 to *Hsu* (hereinafter "*Hsu*") in view of U.S. Patent No. to *Koyrakh et al.* (hereinafter "*Koyrakh*").

While claims 2-20 are added herein and therefore have not been rejected, the Applicant submits that these claims are patentable over *Peterson* or *Hsu* in view of *Koyrakh*, together with claim 1, for at least the reasons discussed below.

Three criteria must be met to establish a prima facie case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the prior art reference, or combination of references, must teach or suggest all the claim limitations. MPEP § 2142.

The Applicant's independent claims 1, 9 and 17 each recite, among other features, some variation of generating a candidate template using the aligned shock channel signals.

The Office Action states that *Peterson* and *Hsu* disclose template creation using an aligned shock channel. (Page 2). The Applicant submits that *Peterson* does not contain such a teaching or suggestion and that the *Hsu* reference is a disqualified reference under 35 U.S.C. §103(c), as discussed below.

In contrast to Applicant's limitation of generating a candidate template using aligned shock channel signals, *Peterson* describes a process for discriminating monomorphic tachyarrhythmia from polymorphic tachyarrhythmia by comparing cardiac complexes of a tachyarrhythmia episode and generating a morphology index for the episode. (Abstract). Successive cardiac depolarizations of monomorphic tachyarrhythmia episodes have a regular waveform appearance. Conversely, polymorphic tachyarrhythmia episodes have successive depolarization wavefronts that are irregular in shape and amplitude. (see, e.g., *Peterson*, col. 1 lines 41 – 50). According to the process outlined in *Peterson*, discrimination between polymorphic and monomorphic tachyarrhythmia relies on calculating a morphology index through comparison of the depolarizations of a tachyarrhythmia episode. *Peterson* does not disclose generating a candidate template from the depolarizations of an episode. In contrast, *Peterson* only teaches that the depolarizations of an episode are compared to each other to determine the morphology index that indicates if the episode is monomorphic or polymorphic tachyarrhythmia.

Although *Peterson* discloses the use of a near-field fiducial point to define a time window for collection of far field data (col. 9, lines 16 – 23), the reference does not teach or suggest forming a template using aligned shock channel signals. The *Peterson* reference does not discuss template formation and *Peterson*'s discrimination process does not rely on the use of a template. The process described by *Peterson* involves comparison of the depolarizations of a tachyarrhythmia episode to determine a morphology index. The morphology index provides a metric indicative of the degree of regularity of the episodes from which discrimination between monomorphic tachyarrhythmia and polymorphic tachyarrhythmia can be made. *Peterson* does not teach or suggest template formation, and in particular does not teach or suggest template formation using aligned shock channel signals as recited in Applicant's claims 1, 9, and 17.

Although the rejection of claim 1 does not rely on *Koyrakh* to teach or suggest generating a candidate template using aligned shock channel signals, a review of *Koyrakh* fails to locate such a teaching or suggestion.

The Applicant's independent claims 1, 9 and 17 each recite some variation of generating a candidate template using the aligned shock channel signals, which the combination of *Peterson* and *Koyrakh* clearly fails to teach or suggest. For at least these reasons, the combination of *Peterson* and *Koyrakh* does not support the rejection under 35 U.S.C. § 103 and Applicant's claims 1, 9 and 17, and all claims dependent therefrom, are patentable over the asserted combination.

The Applicant invokes 35 U.S.C. § 103(c) to negate the applicability of each obviousness (-type) rejection that relies upon the *Hsu* reference. To the extent that the *Hsu* reference is directed to subject matter which is prior art under 35 U.S.C. 102(e), that reference is disqualified as prior art against the Applicant's claimed invention. This conclusion follows because the Applicant's claimed invention and the subject matter of the *Hsu* reference were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person as evidenced by the face of the *Hsu* reference and the assignment of the present invention recorded at Reel/Frame 012115/0112; showing that the assignee is common.

Applicant respectfully requests withdrawal of the rejections of claim 1 and notification that claims 1-20 are in condition for allowance.

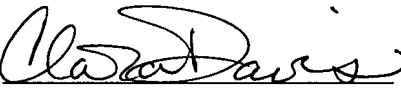
It is to be understood that the Applicant does not acquiesce to the Examiner's characterization of the asserted art or the Applicant's claimed subject matter, nor of the Examiner's application of the asserted art or combinations thereof to the Applicant's claimed subject matter. Moreover, the Applicant does not acquiesce to any explicit or implicit statements or conclusions by the Examiner concerning what would have been obvious to one of ordinary skill in the art. The Applicant respectfully submits that a detailed discussion of each of the Examiner's rejections beyond that provided above is not necessary, in view of the clear absence of teaching or suggestion of various features recited in the Applicant's pending claims. The Applicant, however, reserves the right to address in detail the Examiner's characterizations, conclusions, and rejections in future prosecution.

Authorization is given to charge Deposit Account No. 50-3581 (GUID.004C1) any necessary fees for this filing. If the Examiner believes it necessary or helpful, the Examiner is invited to contact the undersigned attorney to discuss any issues related to this case.

Respectfully submitted,

HOLLINGSWORTH & FUNK, LLC
8009 34th Avenue South, Suite 125
Minneapolis, MN 55425
952.854.2700

Date: 4/4/2007

By: 

Clara Davis
Reg. No. 50,495